



Super fast silica gel desiccant spool container - vase mode



Tomek

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Summary

Silica gel spool container, vase mode (less than 20 mins) compatible with cheap round chinese termometer/higrometer.

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Tags: [container](#) [vasemode](#) [silica](#) [desiccant](#) [silicagel](#)
[perforated](#) [spiralmode](#)

About

I really love original Silica gel spool container by @gdrag. However I wanted to achieve Three additional goals:

1. Make a spiral (vase) print to reduce filament and time,
2. Add some distance between side holes and internal wall of the spool to improve air circulation,
3. Use cheap Chinese hygrometer/thermometer as a cap, so I can know more or less if I'm successful at drying filament.

How to print:

1. adjust bottom thickness to 1mm
2. use spiral (vase) mode (optional for cap)
3. I tried 0.25mm layer height (but think everything between 0.1 and 0.3 will work)
4. The print works fine for 0.4 - 0.7 line width - for thicker lines - hole diameter can be too small and you can have some problems closing container with cap or hygrometer. Make a single test print before bigger batch. You can always try "XY compensation" (remember to compensate only container - not the cap) in slicer - but I'm not sure if it works in vase mode. Nevertheless up to 0.8 works for me - it's just very tight.

Cura users:

New Cura (5.2) removes all bottom holes by default in spiral mode - so after enabling "Spiralize" you have to uncheck "Remove All Holes" option to reenable holes on the bottom of the container.

I used my Anycubic Mega (with changed printhead and Klipper firmware) and it prints in about 20 minutes (short version)

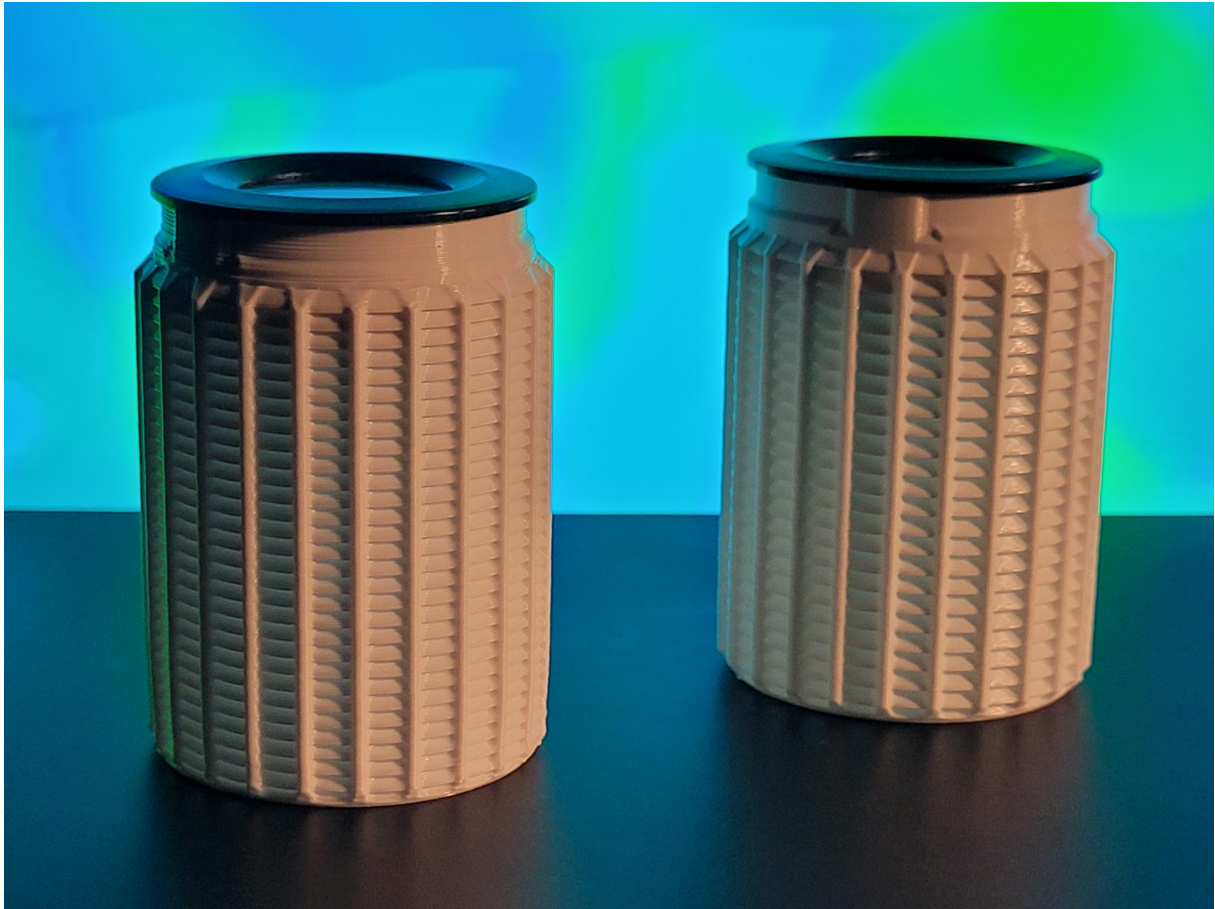
TODOs:

1. (done) Make various heights
2. (done) Make lightweight cap in case One doesn't want to use hygrometer

CHANGELOG:

13.07.2022.

Redesigned container:



- New project (but based on previous shape)
- Minor changes to help print better
- Two flavours:
 - small_gap: holes on top and bottom are narrower (1mm) and segments are 2mm thick
 - big_gap: holes on top and bottom are wider (1.4mm) and segments are 2.5mm thick
- Three sizes for each flavor (50mm, 70mm, 100mm)

12.04.2022.

Redesigned container:



- Added route for inserting hygrometer.
- Added curves to the design to reduce sharp corners and deceleration points. Now container can be printed below 15 minutes
- improved bottom grid pattern

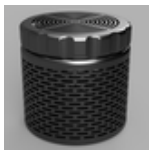
Added cap, so even if You don't have hygrometer, You can still use this design

11.04.2022.

Initial design



This remix is based on



Silica gel spool container

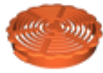
by gdrag

Model files



silicagel_vase_v3_small_gap1mm_cap.stl

☐ Rotate upside down before printing. You can use spiral mode but it is optional



silicagel_vase_v3_big_gap14mm_cap.stl

☐ Rotate upside down before printing. You can use spiral mode but it is optional



silicagel_vase_v3_small_gap1mm_50mm.stl

☐ Print in vase/spiral mode with 1mm bottom thickness



silicagel_vase_v3_big_gap14mm_50mm.stl

☐ Print in vase/spiral mode with 1mm bottom thickness



silicagel_vase_v3_big_gap14mm_70mm.stl

☐ Print in vase/spiral mode with 1mm bottom thickness



silicagel_vase_v3_big_gap14mm_100mm.stl

☐ Print in vase/spiral mode with 1mm bottom thickness



silicagel_vase_v3_small_gap1mm_70mm.stl

☐ Print in vase/spiral mode with 1mm bottom thickness



silicagel_vase_v3_small_gap1mm_100mm.stl

☐ Print in vase/spiral mode with 1mm bottom thickness

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